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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,596	11/30/2001	Hideo Awaji	040302-0281	4101

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EXAMINER	
KERVEROS, JAMES C	
ART UNIT	PAPER NUMBER
2858	

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/996,596	Applicant(s) AWAJI, HIDEO
	Examiner James C Kerveros	Art Unit 2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 10, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Schuster et al. (US 5075628).

Regarding independent Claims 1 and 2, Schuster discloses an insulation monitoring system, comprising:

An electrical wire conductor (14), which is electrically connected to a load (18) electrical wire for supplying power to the load, where in this case the load is that of a motor according to the Schuster reference, "the invention is naturally applicable to any other direct current system, for example power supply to motors", (column 2, line 54-66), also shown in Figure 1.

Charged body winding (42) in which an alternating current flows from the current generator (46) to the winding, which is arranged near an electrical wire conductor (14) for supplying power to the motor (18), where the charged body is electrically insulated from the electrical wire conductor (14), through transformer 38, as shown in Figure 1.

A voltage processing and measurement unit (44) connected to the measurement winding (40) for measuring the electromotive force induced in the electrical wire (14) by

the charged body current generator (4). The alternating current flowing in the conductor 14 generates a magnetic field in the measuring toroid (36), which induces a current in the measurement winding 40 representative of the alternating current, see (column 4, line 5-10), also shown in Figure 1.

Regarding Claim 3, Schuster provides a charged body, which is an AC electrical wire winding (42) where an alternating current flows from the current generator (46), Figure 1.

Regarding Claim 4, Schuster discloses the electrical wire conductor (14) is a power line connected to generator source (22) for supplying current to a control device such as power supply system to motors, (column 2, line 62-6), also shown in Figure 1.

Regarding Claim 5, Schuster discloses a shielded conductor (14), which is an insulated conductor with an AC power supply line connected to the insulated conductor and the return line connected to the ground, as cited by claim 1 of the Schuster reference.

Regarding Claim 6, Schuster provides the shielded conductor electrical wire (14) connected to the motor (18) at point (24), inside the conductive case, Figure 1, which is grounded at point (12).

Regarding independent Claims 10 and 11, Schuster discloses a method for insulation monitoring system, comprising steps of:

Arranging a charged body winding (42) in which an alternating current flows from the current generator (46) to the winding, which is arranged near an electrical wire

conductor (14) for supplying power to the motor (18), where the charged body is electrically insulated from the electrical wire conductor (14), through transformer 38, as shown in Figure 1.

Measuring a voltage with the use of processing and measurement unit (44) connected to the measurement winding (40) for measuring the electromotive force induced in the electrical wire (14) by the charged body current generator (4). The alternating current flowing in the conductor 14 generates a magnetic field in the measuring toroid (36), which induces a current in the measurement winding (40) representative of the alternating current, see (column 4, line 5-10), shown in Figure 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al. (US 5075628) in view of Kaneda et al. (US 6452416).

Schuster discloses all pertinent limitations recited in the independent claims 1 and 2 above.

Regarding Claims 7 and 8, Schuster lacks a plurality of motors connected to voltage measurement device and the conductor through relays.

Kaneda in (US 6452416) discloses an abnormality detecting apparatus for a rotating electric machine, comprising a plurality of electric motors (1) and conductor cable (72) connected to measurement element (80) through contact relays (75) of switching unit (75b) controlled by controller (95), see (column 9, line 55-65), also shown in Figure 2.

It would have been obvious to a person of ordinary skill in the art, at the time the invention was made to employ the relay switching unit as taught by Kaneda in the insulation monitoring system of Schuster by sequentially switching individual motors for connection with the detector unit of Schuster, since this automated modified system will speed up the process of carrying out insulation diagnostic results of multiple electric motors, which can be detected with high accuracy.

Regarding Claims 9 and 12, Schuster lacks a display device for displaying measurement results of the voltage measurement according to grades of insulation.

Kaneda discloses a computer (90) with a display and data management for displaying measurement of the plurality of partial discharge detectors (80).

It would have been obvious to a person of ordinary skill in the art, at the time the invention was made to connect the computer (90) with the display as taught by Kaneda with the detector measurement unit of Schuster, since a computer display system provides an automated method for processing and displaying multiple parameters of insulation diagnostic results, a shown by the tables.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES C. KERVEROS at (703) 305-1081 or the examiner's supervisor, N. LE at (703) 308-1436.

Any inquiry of a general nature relating to this application should be directed to the receptionist at (703) 305-4900.

The official Fax numbers for the organization are (703-872-9318) Before-Final and (703-872-9319) After-Final Office actions.

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JAMES C. KERVEROS

Patent Examiner,
Art Unit 2858, CP4 8D03

By: 2/7/2003

Date: 7 February 2003
Non-Final Rejection